Case report

Unusual foreign body (bee-stinger) in a patient’s esophagus.
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Abstract:
The majority of ingested foreign bodies (FBs) pass down through the gastrointestinal tract (GI) spontaneously. Sharp, pointed or large-sized ones tend to get stuck in upper GI and therefore need to be removed to avert serious complications. On other hand, FBs in the cricopharynx can cause severe discomfort to the patient and compromise the airway.

A 21 year old man had accidentally swallowed a bee and presented with chest and neck pain with dysphagia. He exhibited some signs of anaphylaxis while under observations. Urgent esophagoscopy was carried out. It appeared that the bee has stung the esophagus where the bee-stinger was found inserted in the luminal side of esophagus. This was removed successfully by non-tooth forceps and resulted in no further complications

Introduction:
Esophageal foreign bodies (FBs) are commonly discovered in children. They are also observed in some patients with esophageal disease and are often introduced intentionally by prisoners and mentally handicapped individuals. The shape and size of such FBs determine the potential clinical complications, such as mucosal ulceration and esophageal perforation. A foreign body in the cricopharyngeal region causes severe discomfort to the patient and can obstruct the airway, resulting in suffocation [1]. Most people would have experienced swallowing a FB in their life [2]. We present here a most unusual case of a bee pushing its stinger in a patient’s esophagus.

Case report:
A 21 years old male presented to emergency room in Shifa Hospital, Gaza complaining of mild odynophagia, chest and neck pain. This has started two hours earlier with a sudden feeling of swallowing a foreign body, while enjoying a soft drink in a farm.

On examination, the patient looked well with good general condition and normal vital signs. Indirect laryngoscopy showed normal oro-hypopharynx and no FBs were seen. It appeared that this patient has had no problems in eating a sandwich following the soft drink and before arriving to the hospital. No further action was taken and the patient was discharged home. One hour later, the patient returned to hospital with moderate to severe chest pain, drowsiness and odynophagia. He was re-examined by an ENT specialist. Vital signs were normal together with a normal chest and neck x-ray. Patient was then admitted for observations and given intravenous fluid.

The chest pain started to worsen in following 4 hours and was associated with sweating. The patient became pale with stiff hands and then developed an attack of convulsions. His pulse rate was 104 per minute and blood pressure dropped to 90/50 mm Hg. As a result, the patient underwent emergency diagnostic esophagoscopy using a rigid endoscope.
His oro-hypopharynx together with upper esophagus looked normal. An area of localized swelling and redness was noted in esophageal lining; this was at 2-3cm below cricopharyngeal stricture and at about 20 cm above the cardia. It was focally covered by food material which was gently removed with microcricoid forceps. The swollen area became visually clear and showed a pin like object, looking-like a bee-stinger (Figure 1). This was removed quickly and was confirmed as a bee-stinger by one of our hospital colleagues who is experienced in breeding bees.

The patient was then treated for possible anaphylactic reaction to the bee sting and urgently given intravenous steroids and antihistamine injections (500 mg hydrocortisone I.V. and prothiazine, one 10 mg ampule). The esophageal swelling has reduced in the size, after 20 minutes and vital signs reverted to normal in 18 hours. The patient was then discharged from hospital 36 hours after esophagoscopy. Clinical follow up one week later showed complete recovery.

**Figure 1:** an image of a bee-stinger

**Discussion:**
Accidental FBs ingestion is common. The majority of small FBs pass down the gastrointestinal tract spontaneously and without any sequel. This is particularly experienced by children, commonly between the age of 6 months and 3 years [3, 4]. Swallowed FBs include numerous small handy objects such as: coins, marbles, pins, keys, small toys, buttons, electric batteries, stones, nails, rings and many others. FBs ingestion can also happen accidentally to normal adults and especially to the mentally ill or those under the effect of alcohol. It can be practiced intentionally by adult prisoners [5]. In the adult population, most of FBs found in upper aerodigestive system are related to impaction of solid food material.

The patient’s symptoms depend largely on the nature, shape, size, number and location of FBs in upper aerodigestive system with sharp and toxic material representing the most serious FBs. Immediate mechanical removal of these FBs is the rule [6]; 10-20% of gastrointestinal tract FBs can be removed by endoscopy, 1% may need surgical intervention [7]. This applies to sharp and toxic esophageal FBs in particular, where they need emergency removal as they can lead to serious complications. They should be removed before they reach the stomach [8]. Batteries and toxic materials represent a special category of ingested FBs in the pediatric age group because of their association with serious complications, such as severe chemical esophagitis with resultant mucosal ulceration and possible esophageal perforation. Toxic FBs may also present clinically with picture of anaphylactic shock. On other hand, about 80% of swallowed foreign bodies are passed down to the stomach spontaneously.
Finally, we report an extremely rare accident of swallowing a bee which ended in inserting its stinger in the esophageal wall. Beside the mechanical nature of this FB, the injected venom of the bee stinger has caused an anaphylactic reaction in our patient. Extensive review of literature did not show any similar case.

References:


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